

**REMARKS**

Claims 1-6 are pending in the present application. As will be discussed below, Claim 1 has been amended. Support for the amendment is identified below. No new matter has been added. Accordingly, entry of the present Amendment is requested.

The Examiner does not indicate whether the drawing filed on September 24, 2001, have been accepted. Applicants request confirmation that the drawings are acceptable.

In Paragraph No. 2 of the Office Action, Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

Specifically, it is asserted that in Claim 1, the language “the coating is formed on a surface of” is unclear as to whether the metal coating is limited to only one surface of the non-woven fabric.

In response, Claim 1 has been amended to recite --formed on at least one surface--. Support for the amendment is provided by, for example, page 10 of the specification, line 13. Withdrawal of this rejection is requested.

In Paragraph No. 4 of the Office Action, Claims 1-6 have been rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Yoshikawa *et al.* (U.S. Pat. No. 4,872,932) in view of JP 10-053010.

Yoshikawa *et al.* is relied upon to disclose a method for preparing rubbery composite materials. Yoshikawa *et al.* is further relied upon to teach that a metal such as zinc, cobalt and an alloy thereof can be readily deposited on a substrate as a thin film by a dry plating process such as vacuum deposition, ion plating, DC and RF magnetron sputtering, bipolar sputtering and RF

sputtering processes, and a rubber composition can firmly bond to the resulting metal thin film (column 3, lines 34-45). It is conceded that Yoshikawa *et al.* does not teach the use of a non-woven fabric. JP '010 is relied upon to teach the use of non-woven fabric as reinforcements for tires.

It is concluded, however, that it would have been obvious to one of ordinary skill in the art to modify the rubbery composite material of Yoshikawa *et al.* with a non-woven fabric to improve rigidity and stability.

Applicants respectfully traverse this rejection for the following reasons.

Yoshikawa *et al.* discloses a rubbery composite material comprising a substrate coated with a thin film of zinc, copper, cobalt or an alloy thereof by dry plating, and a rubber composition bonded thereto (Abstract). The substrate may be metals such as steel and aluminum, plastics such as polyallylate, polyacrylate and polyamide, and inorganic materials such as ceramics and glass (column 3, lines 62-64; column 4, lines 33-38; column 5, lines 21-38). In all of the Examples, either a metal material or a plastic material was used as the substrate.

On the other hand, in the present invention, the material for the non-woven fabric may be natural macromolecule fibers such as cotton, rayon and cellulose; synthetic macromolecule fibers such as aliphatic polyamide, polyester, polyvinyl alcohol, polyimide and aromatic polyamide; carbon fibers; glass fibers; and steel wires (page 4, lines 18-23).

Yoshikawa *et al.* does not teach or suggest that a non-woven fabric may be used as a substrate or strong adhesion between this particular substrate and a rubber composition may be achieved. Therefore, Applicants respectfully submit that one skilled in the art would not be

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motivated to substitute the substrate in the rubbery composite material of Yoshikawa et al with a non-woven fabric, with a reasonable expectation of success. Accordingly, withdrawal of this rejection is requested.

In Paragraph No. 6 of the Office Action, Claims 1-6 have been rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 1, 2 and 21 of copending Appln. No. 10/019,250 in view of JP '010.

Applicants also respectfully traverse this rejection.

Claims 1, 2 and 21 of the '250 Application are directed to a rubber-reinforcing fiber wherein an organic or inorganic fiber is coated with a thin layer of metals, and a method for producing the same.

On the other hand, the present invention is directed to a rubber-based composite comprising a non-woven fabric, a metallic coating and a rubber that adheres to the coating and that covers the coated non-woven fabric.


Claims 1, 2 and 21 of the '250 application do not teach or suggest a rubber component in the claimed rubber-reinforcing fiber. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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